2.3 ALTERNATIVES TO PROJECT

2.3.1 Introduction

NEPA requires an evaluation of the comparative effects of a range of reasonable alternatives to a project that would feasibly attain most of the project's basic objectives (40 CFR 1502.14). A feasible alternative is one that can be accomplished in a successful manner within a reasonable period of time, taking into account economic, legal, social, and technological factors. Where the requirements or objectives of a project are very specific or limited in scope, the feasible alternatives are similarly limited. Furthermore, the range of alternatives is governed by the "rule of reason" that requires the EIS to set forth only those alternatives necessary to permit a reasoned choice.

The discussion of alternatives must focus on those alternatives that are capable of avoiding or lessening significant adverse environmental effects that would be caused by the Proposed Action even if the alternatives would impede to some degree attainment of project objectives or would be more costly.

The above principles mandate that the range of feasible project alternatives to be evaluated be determined in relation to the purpose and objectives of the project that, in this case, are very specific and limited. The purpose and objectives of the TMC Project, as previously defined in Section 1.1.2, are to:

- provide a reliable and economically viable source of construction minerals, primarily for the Santa Clarita Valley and greater Los Angeles area;
- develop construction mineral reserves in the Saugus-Newhall P-C Region in areas designated by the CDMG;
- develop a source of ready-mixed concrete for the Santa Clarita Valley;
- mine the Project site to produce 56.1 million tons of PCC aggregates and guarantee $28 million in royalties to the Federal Government in accordance with the Federal Contracts; and
- provide for the environmentally sound and economically feasible reclamation of the site.

The range of alternatives considered is based on the nature of TMC's leases with the Federal government. The purpose and need for the project is to fulfill contractual obligations entered into by TMC with the Federal Government. Under these leases, TMC is obligated to produce 56.1 million tons of PCC aggregates and to pay the Federal Government $28 million in royalties. Because the Federal government only owns the right to the mineral estate at the project site and surface access and occupancy rights for mining purposes, activities that may be contemplated with respect to the Federal government's ownership at the site are limited to those actions that dispose of the mineral estate. Accordingly, the Federal government has no right to implement or contemplate alternative surface uses of the site.

2.3.2 Alternatives Considered in Detail

Because this is a federal project being reviewed under NEPA, the alternatives must not only be designed to reduce environmental impacts but also meet Federal Government regulations designed to facilitate mineral development, conform to other applicable federal law, and protect the environment. In addition, the alternatives analyzed must consider the site-specific topographic and geologic conditions relative to practical mining operations.

Five alternatives involving the Soledad Canyon site have been evaluated in more detail (see Section 3.2). In addition, the alternative of "No Action" is assessed. The alternatives considered in detail for this action are summarized below.

2.3.2.1 No Action Alternative

Description

With this alternative, the Proposed Action would not take place. This alternative would retain the Project site in its current land use, which includes an existing quarry and stockpiles. Mining would neither occur onsite nor would reclamation of the existing mining site.

Analysis/Summary of Impacts

The No Action Alternative would have less impact than the Proposed Action with respect to water resources, noise, public services, site-specific air emissions, biota, visual resources, traffic, and equivalent impacts with respect to cultural resources, land use, and public health and safety. The No Action Alternative would result in impacts that would be greater than the Proposed Action with respect to geotechnical resources, flooding and water quality. With the No Action Alternative, 45 acres from previous mining would remain unreclaimed, and there would be no sedimentation basins or other flood control measures at the site.

The steep slopes of the existing quarry would remain a significant hazard. Erosion of the existing mine site would continue to increase sedimentation of the Santa Clara River, resulting in impacts to water quality and biota. Regional air quality emissions would be greater with the No-Action alternative, because aggregate material would be trucked from farther away. Visual impacts related to nonreclamation of the quarry and stockpiles would remain significant. A Regionally Significant Construction Aggregate Resource Area would be unmined. The site would remain unfenced.

Mitigation Measures

Since no activities are associated with this No Action Alternative, there is no mitigation proposed. The significant impacts associated with the existing site hazards would not be mitigated.

2.3.2.2 Reduced North Fines Storage Area Alternative (Agency-Preferred Alternative)

Description

The volume and area of the NFSA could be reduced by using an optional approach to the mining cut sequence. This approach would allow more and earlier storage of fines in the mine area and reduce the amount of fines going to the NFSA by approximately 7 million tons. This would be accomplished by creating more fines storage capacity in Cut 3 and decreasing the amount of excess fines generated by mining less Tv2. The total product shipped would remain 56.1 million tons.

Analysis/Summary of Impacts

The Reduced NFSA Alternative would result in less environmental impact than the Proposed Action. Overall, this alternative would have less impact on biota and the associated visual disturbance in the NFSA due to less acreage needed for fines storage. Also, because of the deeper excavation of Cut 3 earlier in the schedule of mining cuts, not only does it allow for fines disposal in Cut 3, it also reduces the timeframe of the NFSA activity to the last 5 years of the mining operation, instead of the entire 20 years. The plan of mining is also less impacting to the ridgeline which would be retained at an elevation of between 50 and 80 feet higher than the Proposed Action. Even with these differences, however, visual impacts would not be reduced to less than significant.

Because this plan of mining cuts may result in a decrease of total material excavated, while still producing 56.1 million tons of product, there would be a reduction of onsite truck activity, water use, and air quality impacts associated with less mileage to and from the NFSA. Under this alternative, there would be an approximately 28 percent reduction in onsite vehicle miles traveled; however, daily emissions would remain significant for NO_x, PM-10 and ROGs. Other impacts under this alternative remain essentially the same as the Proposed Action.

Mitigation Measures

All mitigation measures associated with the Proposed Action are applicable to this alternative. In addition, Mitigation Measure B7, applicable only to the RNFSA Alternative, would minimize any potential impacts to ephemeral drainages. See Section 3.2.8.2 for a discussion of this mitigation measure.

2.3.2.3 Batch Plant Location Alternative

Description

This alternative examines locating the batch plant at an offsite location. Consideration was given to locating the batch plant near Lang Station adjacent to the intersection of Soledad Canyon Road and the Antelope Valley Freeway. This would require delivering aggregate to the plant by trucks rather than conveyor belts.

Analysis/Summary of Impacts

By locating the batch plant west of the mining site, additional traffic impacts would occur. A reduction in water requirements for the Project from between 23 to 31 acre-feet of water could partially reduce potential impacts on water resources and sensitive biological resources. However, impacts on both water and biological resources could be mitigated to less-than-significant levels. Overall impacts on vegetation and wildlife from clearing vegetation at Lang Station would not be reduced under this alternative. A slight reduction in impacts on air quality and visual resources would result; however, these impacts would remain significant under the Batch Plant Location Alternative. Impacts to other resources would remain essentially the same as the Proposed Action.

Mitigation Measures

All mitigation measures associated with the Proposed Action are applicable to this alternative.

2.3.2.4 Reclaimed Water Alternative

Description

This alternative considers the Proposed Action's use of other water sources such as reclaimed water. The nearest existing potential sources of reclaimed water that could serve the Project are County wastewater treatment plants located in Palmdale, Saugus, and Valencia. Presently, no large-scale reclaimed water systems are known to be available in the Santa Clarita Valley. The Castaic Lake Water Agency (CLWA) is currently preparing a Reclaimed Water Master Plan that will encompass a large portion of the valley. Additionally, the proposed Rio Dulce Ranch development, located east of TMC's Project, has considered plans for a local water treatment plant. However, there is no guarantee that the development or plant will be built or would be able to provide suitable quality reclaimed water to the Project.

Analysis/Summary of Impacts

Using reclaimed water as an alternate water source could reduce local impacts associated with the Santa Clara River, depending on where the reclaimed water originated. However, depending on the means of transporting reclaimed water, other resource areas would have increased impacts such as the increased traffic, noise, and air quality impacts associated with trucking water to the site. Additional short-term impacts on biota, traffic, noise, and air quality would result from construction of a reclaimed water pipeline. Impacts to water quality and biota may result if new or higher concentrations of water pollutants are introduced to the Santa Clara River. Impacts to other resources would remain essentially the same as the Proposed Action.

Mitigation Measures

All mitigation measures associated with the Proposed Action are applicable to this alternative.

2.3.2.5 Product Transportation Alternative

Description

This alternative considers using the existing railroad for transporting aggregate product from the site to the Los Angeles market. Transport of the aggregate product would require truck delivery of aggregate from a single rail distribution location in the Los Angeles region.

Analysis/Summary of Impacts

Use of rail for product transportation would decrease impacts associated with traffic and air quality at the site. However, truck trips required at the Los Angeles distribution terminal for final product distribution would result in significant impacts on traffic and air quality. Noise impacts on local sensitive receptors would be significant. Impacts to other resources would remain essentially the same as the Proposed Action.

Mitigation Measures

All mitigation measures associated with the Proposed Action are applicable to this alternative.

2.3.2.6 Alternative North Fines Storage Area Alternative

Description

This alternative considers an NFSA within the area immediately north of the proposed Project fines storage site, still adjacent to the Antelope Valley Freeway. This alternative has the objective of providing the required fines storage area that may have less impact on potential future uses in Bee Canyon. However, in order to feasibly use a fines storage area it must be proximate to the proposed mining site, have favorable topography, be able to be acquired, and have suitable zoning. Four potential areas have been identified for analysis as an alternative to storing fines on the mining site. All other mining operations would remain the same as those of the Proposed Action.

Analysis/Summary of Impacts

This alternative results in several areas of impact that would be greater than those of the Project NFSA including use of water, drainage control, air quality, biota, and visual quality. Increased air quality and water usage impacts would result from the further distances of haul truck travel, and biota and drainage impacts would result from the features inherent in the proposed sites including larger drainage areas, flowing water, sensitive plants, and oak trees that would require removal. Visual impacts would be placed closer to the Antelope Valley Freeway, would be obtrusive, and would cover a greater surface area than the Project NFSA area. Both geotechnical and land use impacts are considered to be similar to or greater than the Project fines area. Impacts to other resources would be essentially the same as the Proposed Action.

Mitigation Measures

All mitigation measures associated with the Proposed Action are applicable to this alternative.

2.3.2.7 Reduced Quantity Mining Concept Alternative

Description

This alternative examines a mining concept that would potentially reduce some significant environmental impacts of the Proposed Action by reducing the quantity of sand and gravel extracted from the site. Under this alternative, mining activity would progress in a manner similar to the Project for Cuts 1, 2, and a portion of Cut 3. Mining activity would be curtailed after completion of up to 50 percent of Cut 3, which would avoid the lowering of the northeast-southwest ridgeline that occurs through the completion of Cuts 3 and 4 of the proposed mining plan. This alternative involves mining 47 million tons of material to produce 32 million tons of PCC aggregates. This alternative has been evaluated because of its potential to reduce visual, air quality, and transportation impacts.

Analysis/Summary of Impacts

The Reduced Quantity Mining Concept Alternative would result in less environmental impact than the Proposed Action in three particular resource areas (visual resources, air quality, and traffic). Overall, this alternative would have less impact on visual resources due to the reduced amount of landform alteration needed to accomplish the concept. In avoiding completion of proposed Cut 3 to the west and eliminating Cut 4, lowering the northeast-southwest ridgeline is avoided. Nonetheless, because of changes to form, line, and texture associated with the proposed NFSA, the visual impacts would not be reduced to a level of nonsignificance.

With regard to air quality, this alternative produces 32 million tons of product, which is approximately 57 percent of the Proposed Action tonnage. Total air quality impacts over the 20-year Project mining period would be reduced by approximately 43 percent. However, peak daily operations would remain the same as the Project, and emissions on a day-to-day basis would remain significant for NO_x, PM-10, and possibly ROGs. The reduced tonnage of aggregates produced by this concept would also result in reduced truck traffic on Soledad Canyon Road over the 20-year mining period. However, on a daily basis, truck traffic could be as high as the Proposed Action. Other impacts under this alternative would be essentially the same as the Proposed Action. This alternative would generate 12.9 million tons of fines, 11.9 million tons of which would still need to be deposited in the proposed NFSA. Impacts with respect to drainage and erosion control would be the same as the Proposed Action. Peak water use and impact on water resources would be similar to the Proposed Action but would be less over the life of the Proposed Action in proportion to the reduced amount of aggregate mined in Phase 2. Impacts to other resources would be essentially the same as the Proposed Action.

Mitigation Measures

All mitigation measures associated with the Proposed Action are applicable to this alternative.

2.4 COMPARISON OF ALTERNATIVES

NEPA requires identification of the Agency's Preferred Alternative which is the alternative which the agency believes would fulfill its statutory mission and responsibilities, giving consideration to not only environmental, but also economic, technical and other factors (46 Fed. Reg. 18027). It is identified so that agencies and the public can understand the lead agency's orientation (46 Fed. Reg. 18027).

40 CFR Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement, and identify such alternative in the final statement . . . ." This means that if the agency has a preferred alternative at the Draft EIS stage, that alternative must be labeled or identified as such in the Draft EIS. If the responsible federal official in fact has not selected a preferred alternative at the Draft EIS stage, a preferred alternative need not be identified there. By the time the Final EIS is filed, Section 1502.14(e) presumes the existence of a preferred alternative and requires its identification in the Final EIS "unless another law prohibits the expression of such a preference" (46 Fed. Reg. 18027). In the Supplemental Draft EIS, BLM designated the Agency Preferred Alternative as the Reduced NFSA Alternative with the conveyor mitigation AQ3, described in Section 3.1.7.

This section first presents discussion comparing alternatives to the Proposed Action, followed by discussion of economic and technical factors which were considered by BLM in determination of the Agency Preferred Alternative (APA).

2.4.1 Summary of Comparison of Alternatives

The following is a discussion comparing the alternatives to the Proposed Action. Table 2.4-1 presents a summary of the Proposed Action and alternatives after mitigation is applied.

When compared to the Proposed Action, the No Action Alternative was found to have less or equivalent impacts for all except two resource areas. The No Action Alternative has the potential to result in greater impacts on flooding and water resources. Under this alternative, no mining is proposed to occur, and the site would remain in its present state as vacant land that includes an existing quarry mined by a previous operator.

Because there would be no mining under the No Action Alternative, there would be no approved plan or financial assurance for the reclamation of the existing quarry that is within the site. The existing quarries and stockpiles would not be recontoured, leaving some potentially unstable slopes in place, and the slopes would not be revegetated. The No Action Alternative would also not provide desilting/debris basins to mitigate site erosion and sedimentation impacts that exist onsite at present and would continue with No Action. Also, existing conditions onsite would eventually result in potential adverse impacts on water quality in the Santa Clara River due to the sedimentation from the unreclaimed quarry.

Table 2.4-1

COMPARISON OF SIGNIFICANT EFFECTS FOR PROPOSED ACTION AND ALTERNATIVES

Environmental Factor	Alternative							
	Proposed Action	No Action	Reduced North Fines Storage Area	Batch Plant Location	Reclaimed Water	Railroad Transportation	Alternative North Fines Storage Area	Reduced Quantity Mining Concept
Geotechnical	Landform alteration reduced to nonsignificant.	Steep slopes of existing quarry would remain; however, much less grading to occur.	Less NFSA disturbed; impacts reduced to nonsignificant.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Larger NFSA area disturbed; impacts reduced to nonsignificant.	Less mining and NFSA area disturbed; landform alteration reduced to nonsignificant.
Water Resources	Potential impacts to sensitive habitats from subsurface flow pumping reduced to nonsignificant.	No water would be used. No impact.	Slightly less than Proposed Action due to reduced material mined.	Same as Proposed Action.	Same or less than Proposed Action, depending on source of water.	Same as Proposed Action.	Increased water demand due to increased truck travel; impacts reduced to nonsignificant.	Same as Proposed Action. Less water demand in Phase 2.
Flood	Potential impacts from increased runoff reduced to nonsignificant.	No silting/debris basins would be installed. Erosion and sedimentation would remain potentially significant.	Slightly less than Proposed Action due to reduced material mined.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Alternative sites contain blue line stream; ravines have greater runoff potential. Potential impacts reduced to nonsignificant.	Same as Proposed Action.
Water Quality	Potential impacts from increased sedimentation, debris flows, and operational contaminants reduced to nonsignificant.	No erosion or sedimentation control would result in potentially significant impact.	Same as Proposed Action.	Same as Proposed Action. Slight reduction in water demand.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Noise	Potential impacts from onsite activity and increased traffic noise reduced to nonsignificant.	No new noise sources would be introduced. No impact.	Same as Proposed Action.	Same as Proposed Action.	Increased if water is trucked in.	Fewer trucks but increased train noise; potentially significant.	Same as Proposed Action.	Fewer trucks over the long term; reduces impact to nonsignificant.

Table 2.4-1

COMPARISON OF SIGNIFICANT EFFECTS FOR PROPOSED ACTION AND ALTERNATIVES (CONTINUED)

Environmental Factor	Alternative							
	Proposed Action	No Action	Reduced North Fines Storage Area	Batch Plant Location	Reclaimed Water	Railroad Transportation	Alternative North Fines Storage Area	Reduced Quantity Mining Concept
Public Services	Fire hazards reduced to nonsignificant.	No demand for services. No impact.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Air Quality	Impacts from mining operations, NO_x, ROG, and PM-10 emissions will remain significant.	No activities result in no site-specific impact. Regional air quality impacts would occur from trucks hauling aggregate longer distances.	Reduced onsite emissions due to conveyor and other mitigation, but impact remains significant.	Slightly fewer emissions but impact remains significant.	Increased if water is trucked in. Emissions remain significant.	Fewer trucks, but increases in train emissions remain significant.	Slightly increased emissions; remains significant.	Fewer emissions over the long term, but NO_x, PM-10, and possibly ROG remain significant.
Biota	Loss of 187 acres of natural vegetation and sensitive species reduced to nonsignificant. Potential impacts on sensitive species and unarmored threespine stickleback reduced to nonsignificant.	With no erosion or sediment control, potential significant impacts could occur on habitat of unarmored threespine stickleback.	Less NFSA acreage disturbed but impact remains significant. All other impacts the same as Proposed Action.	Slightly reduced potential impact on unarmored threespine stickleback from less water drawdown.	Avoids potential impact on unarmored threespine stickleback. Short-term impacts if pipeline constructed.	Same as Proposed Action.	Same as Proposed Action with larger area impacted, and potential to impact endangered slender-horned spineflower in Bee Canyon.	Less acreage disturbed but remains significant. Same potential impacts on unarmored threespine stickleback.
Cultural Resources	Potential impacts on resources reduced to nonsignificant.	No activities result in no impact.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Visual Resources	Impacts from visual changes are reduced but remain significant.	Visual impacts related to unreclaimed quarry would be significant.	Less NFSA disturbed; less ridgeline lowering; impact remains significant.	Slightly less impact on south side; remains significant.	Same as Proposed Action.	Same as Proposed Action.	Greater level of impact due to larger area disturbed; disturbance more evident for SR 14.	Preserves ridgeline, but impact remains significant for NFSA.

Table 2.4-1

COMPARISON OF SIGNIFICANT EFFECTS FOR PROPOSED ACTION AND ALTERNATIVES (CONTINUED)

Environmental Factor	Alternative							
	Proposed Action	No Action	Reduced North Fines Storage Area	Batch Plant Location	Reclaimed Water	Railroad Transportation	Alternative North Fines Storage Area	Reduced Quantity Mining Concept
Traffic	Potential roadway constraints and safety hazard from trucks reduced to nonsignificant.	No project traffic result in no impact.	Same as Proposed Action.	Additional truck trips required. Slightly increased traffic. Impact reduced to nonsignificant.	Increased traffic if water is trucked in.	Less truck traffic at site, but increased trucks at rail end points; results in greater potential impact; reduced to nonsignificant.	Same as Proposed Action.	Less traffic; impact over the long term reduced to nonsignificant.
Land Use	Project appears consistent. No impact.	No action results in no impact. A significant source of aggregates would remain unmined.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Public Health and Safety	Potential impacts associated with fuels and hazardous materials reduced to nonsignificant.	No activities result in no impact. The site would remain unfenced.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.

The Reduced NFSA (RNFSA) Alternative would result in slightly less environmental impact than the Proposed Action in three particular resource areas including biota, visual resources, and air quality. Because the RNFSA Alternative plan of mining cuts would result in a decrease in the amount of excess fines, 18 less acres would be disturbed for the NFSA. Also, the NFSA would be disturbed in the last 5 years of mining operations, rather than the entire 20-year period of operations. The plan of mining cuts also lessens the extent of lowering of the ridgeline. While there will be slightly less visual impact than the Proposed Action, impacts would remain significant. This RNFSA plan of mining cuts would reduce the quantity of material to be excavated to still produce the 56.1 million tons of products, thereby resulting in slightly less impacts to on-site truck activity, water for dust control and air quality impacts. On-site air quality, however, would remain significant for NO_x, PM-10, and ROGs. All other impacts remain the same or very similar to the Proposed Action.

The alternative batch plant location would slightly reduce potential impacts on water resources and sensitive biological resources but would increase impacts on traffic. Air quality and visual impacts would be slightly reduced but remain significant. The reclaimed water alternative could reduce impacts on local water resources, depending on the origin of the reclaimed water. Transport of reclaimed water would increase impacts on traffic, noise, and air quality caused by trucks or construction of a pipeline to the site. Potential impacts on water resources and sensitive biological resources related to the Project as presently planned will be mitigated below a level of significance. The alternative batch plant location and the reclaimed water alternatives would create additional impacts and would not eliminate any of the Proposed Action's significant impacts that could not otherwise be mitigated below a level of significance.

Alternative product transportation would slightly decrease impacts associated with traffic and air quality at the site but would not reduce the impacts to levels below significance because impacts on these resources would occur at the Los Angeles distribution terminal. Additionally, significant noise impacts would result from the daily increase in rail activity. The alternative product transport would create additional impacts and would not reduce any of the Proposed Action's significant impacts below a level of significance.

The NFSA Alternative results in several areas of impact that would be greater than those of the Proposed Action NFSA including a greater use of water, drainage requirements, and greater impacts on air quality, biota, and visual quality. Increased air quality and water usage impacts would result from the further distances of haul truck travel, and biota and drainage impacts would result from the features inherent in the proposed alternative fines sites including larger drainage areas, flowing water, and oak trees that would require removal. Visual impacts would be placed closer to the Antelope Valley Freeway, would be obtrusive, and would cover a greater surface area than the Proposed Action NFSA. Both geotechnical and land use impacts would be similar to or greater than those for the proposed TMC Project NFSA. The level of impacts on resources would either remain the same as the Proposed Action or be increased under this alternative.

The Reduced Quantity Mining Concept Alternative would result in slightly less environmental impact than the Proposed Action in three particular resource areas including visual resources, air quality, and transportation. Other impacts under this alternative would be essentially the

same as the Proposed Action. However, analysis has shown that while impacts in the three areas would be less than the Proposed Action, the impacts on visual resources and air quality would still be considered significant. With respect to visual resources, preserving the ridgeline is a positive aspect of the alternative though the need to implement the NFSA remains a significant visual impact. With regard to air quality, the total amount of air emissions over the 20-year mining period would be reduced by approximately 43 percent; however, daily emissions associated with operations would remain significant for NO_x, PM-10, and possibly ROGs. Also, the reduced tonnage of aggregates produced by this concept would result in reduced truck traffic on Soledad Canyon Road over the long term, although peak daily trips would not be changed. Other impacts under this alternative would be essentially the same as the Proposed Action.

The No Action Alternative has a lower level of impact on almost all resources, but provides no mitigation for present onsite conditions that, if left in their present state, would result in impacts on flooding and water resources as discussed above.

In comparison to the Proposed Action, the RNFSA Alternative and the Reduced Quantity Mining Concept Alternative all result in similar impacts, with the levels of impacts being only slightly less impacting based on the actions of these alternatives. Each of these alternatives still have significant residual impacts for visual resources and air quality.

2.4.2 Selection of the Reduced NFSA Alternative as the Agency Preferred Alternative

NEPA requires identification of the agency's preferred alternative (APA) or alternatives in accordance with 40 CFR Section 1502.14e and BLM NEPA handbook H-1790-1 (Chapter 5, Section B.2.b). In accordance with the BLM Handbook, the selection of the preferred alternative should be based on the environmental analysis as well as consideration of other factors that influence the decision or are required under another statutory authority. The BLM did not identify an APA in the DEIS; however the SDEIS identified the BLM's APA as the RNFSA Alternative with conveyor mitigation AQ3. The factors assessed in the selection of this alternative are discussed in this section. An expanded description of the RNFSA Alternative has been included in Section 3.2.14 of this FEIS.

Technical, legal, economic, and environmental factors may be considered to determine whether an alternative is feasible, and preferred. In consideration of legal and economic factors, the Federal Contracts have been entered into by the BLM and TMC pursuant to federal laws and the United States District Court Order of Compromise Settlement of the case entitled *United States v Canyon Country Enterprises* (CV86-535-PAR [JRx]). The Federal Contracts were issued for the sale of 56.1 million tons pursuant to the U.S. District Court ordered sale and, pursuant to a Federal Government EA and FONSI, for the sale of up to 100 million tons as was advertised in the Notice of Sand and Gravel Sale. Also, the Final EIS for the BLM's South Coast Resource Management Plan recognizes the increasing demand for sand and gravel to be used as construction aggregate material and recognizes that BLM public and split estate lands will be increasingly in demand to supply sand and gravel (BLM 1992). Furthermore, the EIS states that the BLM has completed a competitive sale in Soledad Canyon and sold 56.1 million tons with a bid value of $28 million.

There is a demand in the greater Los Angeles region area for PCC aggregate to maintain what has already been developed, continue to improve the regional infrastructure, and supply construction material for urban renewal and disaster reconstruction after major earthquakes. The consumption rate of construction aggregate for the greater urban Los Angeles area is estimated as 3.4 tons per person per year (SMGB 1993). A relatively large portion of this market demand will be met by the Proposed Action. A list of public works projects that TMC has supplied or would typically supply includes:

- expansion of airports such as the Los Angeles International Airport's taxiways,
- treatment plant expansions for facilities such as the Hyperion Sewage Treatment Plant and the Tillman Water Reclamation Facility,
- mass transit facilities such as the Metro Rail and the Blue Line Rail Systems,
- repairs and improvements to the existing Los Angeles freeway system such as Interstates 5 and 10 and the 60 Freeway, and
- emergency and damage repair projects such as the Central Library fire repair project and the Los Angeles Coliseum earthquake repair project.

As previously stated in Section 1.1.2.4, during 1992 and the first 10 months of 1993, TMC supplied a total of approximately 568,000 tons of sand and gravel to public works agencies. Additionally, TMC manufactures and supplies roughly 500,000 tons of sand and gravel per year to other ready-mixed concrete producers in the area. Because this market demand exists, it is reasonable to assume that the demand will be met whether the Project exists or not. The market demand will be met by another mining operation(s) either through expanding an existing operation(s) or developing a new site(s).

The current aggregate reserves serving the greater Los Angeles region market will be depleted in the near future as previously discussed. The primary source of aggregate material for the greater Los Angeles region market currently is the San Gabriel Valley and San Fernando Valley P-C Regions. The San Fernando Valley reserves are projected to be nearly depleted, and this P-C Region already relies on the neighboring Saugus-Newhall P-C Region for PCC aggregate. To continue to supply the greater Los Angeles region market, one or both of the following options must occur: (1) extend the operating life of existing operations where aggregate resources are available that are not currently permitted, and/or (2) permit new operations to develop nonpermitted resources that are not currently available. Because most of the unpermitted resources in the San Gabriel Valley and the San Fernando Valley P-C Regions are either in alluvial deposits in rivers and major washes or inaccessible because of urbanization, it is unlikely that many additional resources will become available in these P-C regions because of regulatory requirements. Based on current projections in the update of PCC aggregate reserves and resources in Ventura County (SMGB 1993), it is unlikely that PCC aggregates from the Western Ventura County and the Simi P-C Regions will supply the greater Los Angeles market. Orange County currently imports aggregate to meet demand in its area and therefore would not be expected to supply the Los Angeles market. Given the issues of consumption

demand for aggregate reserves, product quality, land use conflicts, distance, and regulatory requirements, San Bernardino and Riverside Counties cannot be relied on to supply the greater Los Angeles market. The most likely alternative area for development of aggregate production for the Los Angeles market is the Palmdale-Littlerock P-C Region.

The Reduced Quantity Mining Concept Alternative would leave a substantial quantity of future reserves in place. The alternative does not meet the requirements of the Federal Contracts objectives for the quantity of material to be mined that has been established through the Federal Contracts issued to TMC by the BLM in March 1990. These objectives are to mine the Project site to produce 56.1 million tons of PCC aggregate and guarantee $28 million in royalties to the Federal Government. A lesser quantity of material mined would not be feasible from an economic perspective.

Prior to bidding on the Federal Contracts, TMC conducted feasibility evaluations to determine the amount of material that needed to be produced to provide a reliable amount of PCC aggregate material for the greater Los Angeles market with a reasonable economic return. The amount was 56.1 million tons. They found that producing less material than 56.1 million tons would still involve similar royalty costs, facility construction costs, and operating costs as compared to the investment in the Project. The Proposed Action and the RNFSA Alternative both meet the objectives to produce 56.1 million tons of PCC aggregate and both are considered economically feasible. The primary difference between the RNFSA Alternative and the Proposed Action, is that because the RNFSA Alternative will place more sub-economic excess natural fine material in Cut 3, the high quality Tv1 material that remains in Cut 3 will be more difficult to access in future operations. Also, because the Reduced NFSA Alternative will remove less Tv2, less Tv1 will be exposed and available for future mining operations in the Cut 2 and Cut 4 areas. The Tv2 material would have to be removed for future mineral development to access the high quality Tv1 material. A detailed discussion of these materials and the Mining Concept Plan are presented in Section 2.1.1.1.

The BLM must take not only the environmental, but also the technical and economic elements into consideration for selection of the APA. The RNFSA Alternative with conveyor system mitigation (mitigation measure AQ3) satisfies these considerations.